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Younger brains 'tricked' by alcohol

Catharine Munro

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Teenagers who drink heavily can associate bad experiences such as vomiting and car accidents with pleasure, according to a US expert on alcohol abuse.

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Aaron White, a health administrator with the National Institute on Alcohol Abuse and Alcoholism, said neurological processes, that were originally designed to ensure human survival, were put off course by alcohol.

Dr White, a psychologist, was speaking yesterday at a conference organised by Drinkwise, a research group funded by the Australian Government and the liquor industry.

Alcohol, along with other drugs, induced the release of the neuro-transmitter dopamine. The younger the consumer of alcohol, the more likely the habit of drinking would become entrenched, he said.

Experiences while drinking, such as vomiting and car accidents, can be associated with the pleasurable feeling that dopamine induced. "The brain is tricked into thinking those things are positive because it felt good ... Pleasure increases the odds that this rewarded behaviour will be repeated."

Dr White said a review of research at the University of California, San Diego, had found heavy alcohol use among adolescents led to a decrease in the size of the frontal lobes, the part of the brain associated with planning, inhibition and emotion regulation.

Statistics showed that in the US, President Ronald Reagan's decision in 1984 to raise the legal drinking age to 21 had reduced the number of alcohol-related fatalities.

However, Dr White said such a measure would not necessarily work in Australia. "It's an experiment that has to be done but in America, we got lucky," he said.

In Australia, bad behaviour was also becoming part of the scenery for adolescents, Griffith University criminology lecturer Gillian McIlwain, told the conference. She is halfway through a nationwide study aimed at reducing alcohol-related harm.

"It's OK for people to be seen vomiting, it's OK to be seen fighting. In fact they are becoming desensitised to it."

New research by Monash University had also found that the key driver to drinking for adolescents were friends, followed by easy access to alcohol and cheap drinks.

In a paper on why people aged 14 to 24 drink, sociologist Jo Lindsay said adolescents believed that health warnings against drinking more than two serves of alcohol a day did not apply to them.

The study, which involved in-depth interviews with young people, found that the biggest deterrent for under-age drinking was parental influence. Drink-driving laws were also considered important. However, laws against under-age drinking "were seen as largely ineffective".

"Young people drink for pleasure and to enhance their social life," Ms Lindsay told the conference.

Contrary to social stereotypes, adolescents did exercise control over their consumption because of demands enforced by study, their parents and holding a job.

"Young people have many responsibilities in their lives, including study and work," she said. "[They] are not naive about the role of alcohol in their life. They are actually trying to manage it and its place in their life and find a way to young adulthood."

This story was found at: <http://www.theage.com.au/lifestyle/wellbeing/younger-brains-tricked-by-alcohol-20090428-am1h.html>